UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,865	11/05/2003	Joseph J. Kubler	14364US03	7803

7590 03/04/2005	**EXAMINER**
Christopher C. Winslade	VINCENT, DAVID ROBERT

ART UNIT	PAPER NUMBER
2661	

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DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/701,865	KUBLER ET AL.
	Examiner	Art Unit
	David R Vincent	2661

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>22-54</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>22-54</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1.   Regarding claims 24, 31, 38, 45, 49, and 53 the applicant

is advised that IP and TCP are two distinct protocols but are

commonly referred to as the TCP/IP suite of protocols.   The

applicant *may* want to rephrase the expression the IP is the

TCP/IP protocol because it amounts to saying the Internet

Protocol is the Transmission Convergence Protocol/Internet

Protocol protocol.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in a patent granted on an application for
> patent by another filed in the United States before the invention thereof
> by the applicant for patent, or on an international application by another
> who has fulfilled the requirements of paragraphs (1), (2), and (4) of
> section 371(c) of this title before the invention thereof by the applicant
> for patent.

The changes made to 35 U.S.C. 102(e) by the American

Inventors Protection Act of 1999 (AIPA) and the Intellectual

Property and High Technology Technical Amendments Act of 2002 do

not apply when the reference is a U.S. patent resulting directly

or indirectly from an international application filed before

November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the

amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1.   Claims 22-24, 28-32, 36-39, 43-50 are rejected under 35

U.S.C. 102(e) as being anticipated by Ayanoglu (5,570,367).

As shown in Figs. 1-6, especially Fig. 1, Ayanoglu

discloses communications network (Fig. 1) supporting the

exchange of voice and data (data from e.g., computer 102, and

voice from phone 152, Fig. 1 and respective disclosure,

especially col. 2, lines 50-56; and col. 3) wherein the portable

terminal (e.g., 152) includes a processing circuit which

converts analog data/sound (e.g., speech) into packets using a

medium access controller (e.g., col. 3, especially line 22),

captures data packets (using e.g., CDMA, TDMA and receiving

e.g., data for computer 102; col. 2; col. 7, lines 14-41), at

least one access device (cell sites 106-108, 110, or 112, and

respective disclosure) having an interface (e.g., connection to

130 or port to 140) for a wired network which is a PSTN or

Internet (col. 5, lines 50-60), selectively transferring (based

on call setup, col. 6, lines 20-32; col. 7, lines 14-41; and

using polling and stored packets in a buffer, col. 4, lines 5-

66), using a transceiver circuit to send at least a portion of

the information from a network interface to a wireless interface

(e.g., modulating data, col. 2,lines 45-67; sending analog voice

over a digital wireless medium, col. 3,lines 6-50; or Fig. 1 and

respective disclosure), using IP or TCP/IP (e.g., col. 5, lines

50-60), a digital network interface (using packets, as in

TCP/IP, col. 5, lines 50-60), and data unrelated to voice (e.g.,

data from computer 102; col. 7, lines 14-41 or PDA, col. 3), as

specified in claims 22-24, 28-32, 36-39, 43-50.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

Claims 25-27, 33-35, 40-41, and 51 are rejected under 35

U.S.C. 103(a) as being unpatentable over Ayanoglu as set forth

above, in view of Bruckert (US 5,128,959).

However, Ayanoglu failed to particularly call for using a

plurality of data rates, frequency hopping, and Direct Sequence

Spread Spectrum (DSSS), as specified in claims 25-27, 33-35, 40-

41, and 51.

Bruckert teaches using a plurality of data rates in a CDMA

network (various bandwidths, col. 3, lines 10-14; col. 4, lines

38-58; using resource requests for BW, col. 6, lines 39-45; col.

7, lines 36-46), frequency hopping (e.g., col. 2, lines 13-31),

and DSSS (e.g., col. 2, lines 13-31), as specified in claims 25-27, 33-35, 40-41, and 51.

It would have been obvious to use a plurality of data rates because Ayanoglu discloses sending packets of data from a plurality of sources (Ayanoglu: e.g., 103, 101, 151, Fig. 1), over a CDMA link (Ayanoglu: col. 3, lines 5-12), which could easily require a plurality of different rates or bandwidths for each device.

It would have been obvious to use frequency hopping because FH is part of the 802.11 WLAN suite of access methods and combining FH with TDMA amounts to making a system similar to a GSM system. Adding FH helps to mitigate fading, and TCP/IP runs on top of the layer-2 protocols such as the MAC/Ethernet layer.

It would have been obvious to use DSSS because it is well known to use mobiles both inside buildings as in personal handy phones, PDAs or with WLANs. Using DSSS is part of the 802.11 WLAN suite of access methods and using DSSS helps to mitigate fading.

Claim Rejections - 35 USC § 103

3.   Claims 27, 35, 42, and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ayanoglu and Cripps, as set forth above, in view of Scholefield (US 5,742,592).

In the event that the applicant would argue using a plurality of bandwidths does not inherently result in a plurality of different data rates being used, a third teaching (Scholefield) is included.

Scholefield teaches creating MAC layer packets (col. 3, lines 44-67; col. 4, line 50-col. 5, line 6) using a plurality of data rates (using a plurality of sub channels, col. 3, lines 1-67; col. 4, lines 13-67), in a CDMA, GSM, GPRS or TDMA network (col. 1 or col. 3, lines 25-31), wherein the mobiles may be PDAs or computers (col. 3, lines 13-44).

It would have been obvious to use a plurality of data rates because Ayanoglu discloses sending packets of data from a plurality of sources including PDAs and computers (Ayanoglu: e.g., 103, 101, 151, Fig. 1), over a CDMA link (Ayanoglu: col. 3, lines 5-12), which could easily require a plurality of different rates or bandwidths for each device. By assigning a plurality of sub channels and/or using a wider bandwidth, a computer could send data files or access web sites on the Internet.

Claim Rejections - 35 USC § 103

4.   Claims 27, 35, 42, and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayanoglu, as set forth above, in view of Mahany (US 5,483,676).

In the event that the applicant would argue using a
plurality of bandwidths does not inherently result in a
plurality of different data rates being used, a third teaching
(Scholefield) is included.

Mahany teaches using a TDMA network (col. 5, lines 1-9),
polling and a plurality of data rates (col. 2, lines 35-57; col.
7, lines 41-67) wherein the BER (col. 19), signal strength or
quality of the channel is taken into account (col. 15, line 50-
col. 17, line 32).

It would have been obvious to use a plurality of data rates
because Ayanoglu discloses using a TDMA link (Ayanoglu: col.
2,lines 45-56 or col. 3, lines 5-12) sending packets of data
from a plurality of sources including PDAs and computers
(Ayanoglu: e.g., 103, 101, 151, Fig. 1), which could easily
require a plurality of different rates for each device. By
increasing the data rate, a computer could send data files or
access web sites on the Internet when network conditions
prevailed.

Claim Rejections - 35 USC § 103

5.   Claims 25, 33, 40, and 47 are rejected under 35 U.S.C.
103(a) as being unpatentable over Ayanoglu as set forth above,
in view of Cripps (US 5,838,730).

However, Ayanoglu failed to particularly call for using the

2.4 Ghz band and frequency hopping, as specified in claims 25,

33, 40 and 47.

Cripps teaches using the 2.4 GHz band and frequency hopping

(FH) with a WLAN (e.g., abstract or col. 2, lines 13-35), as

specified in claims 23-24, and 41; and Ethernet compliant (WLAN,

cols. 1-2), as specified in claims 25, 33, 40, and 47.

It would have been obvious to use the ISM or 2.4 GHz band

because it is one of the available frequencies for wireless

communication and because it is well known to use mobile both

inside buildings as in personal handy phones or with WLANs.

Using frequency hopping is part of the 802.11 WLAN suite of

access methods and combining FH with TDMA amounts to making a

system similar to a GSM system. Adding FH helps to mitigate

fading, and TCP/IP runs on top of the layer-2 protocols such as

Ethernet.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the

art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

7.   Claims 26, 34 and 41 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ayanoglu as set forth above, in view of

Gilhousen (US 5,280,472).

However, Ayanoglu failed to particularly call for using

Direct Sequence Spread Spectrum (DSSS), as specified in claim 25

and 42.

Gilhousen teaches that DSSS is a well-known method of

communicating wirelessly (e.g., col. 4, lines 27-46).

It would have been obvious to use the DSSS because it is

well known to use mobiles both inside buildings as in personal

handy phones or with WLANs. Using DSSS is part of the 802.11

WLAN suite of access methods and using DSSS helps to mitigate

fading.

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to David R

Vincent whose telephone number is 571 272 3080. The examiner

can normally be reached on M-TH.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Chau Nguyen can be

reached on 571 272 3126. The fax phone number for the

organization where this application or proceeding is assigned is
703-872-9306.

Information regarding the status of an application may be
obtained from the Patent Application Information Retrieval
(PAIR) system. Status information for published applications
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see http://pair-direct.uspto.gov. Should you have questions on
access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

David R Vincent
Primary Examiner
Art Unit 2661

February 19, 2005